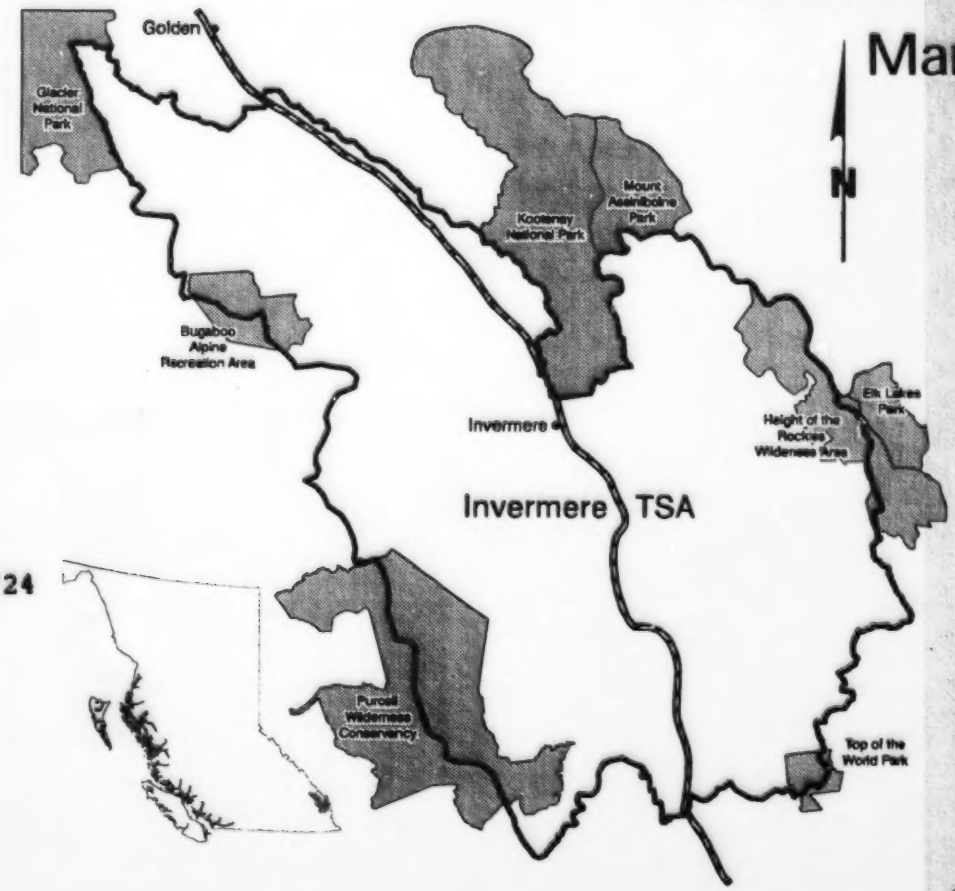
Timber Supply Review

Invermere Timber Supply Area

Information Report
March 2000



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Introduction

The British Columbia Forest Service is required by law to formally review the timber supply* in all timber supply areas* and tree farm licence* areas in the province. A review of each of the areas is completed at least once every five years. The main objectives of the reviews are:

- to identify the economic, environmental and social information that reflects the current forest management practices—including their effects on the short- and long-term timber supply
- to identify where improved information is required for future timber supply forecasts
- to provide the chief forester with information to make any necessary adjustments to the allowable annual cuts* for the next five years

> * *Throughout this document, an asterisk at the end of a phrase or word indicates that a definition can be found in the margin.*

Objective of this document

The objective of this document is to provide an opportunity for public review of the draft data and management assumptions that will be applied in the timber supply analysis for the Invermere timber supply area. This document represents the early stages of the timber supply review process and is intended to provide a non-technical overview of the data and management assumptions that will be used in the upcoming *Invermere Timber Supply Area Analysis Report.*

The *Invermere Timber Supply Area Analysis Report* will be one of the documents that the chief forester will consider in making the allowable annual cut determination under Section 8 of the *Forest Act.* Public input is encouraged to ensure the best information is used in determining allowable annual cuts.

This report contains a general description of the data assumptions and current forest management practices related to timber supply for the Invermere timber supply area. For the purpose of this timber supply review, current practices can be defined as the set of land-use decisions and forest management practices that are currently implemented and enforced. Future forest management objectives that may be established but are not currently implemented and enforced are not included.

Many of the draft data and management assumptions are summarized on pages seven through ten. For a more detailed description of the information, please contact the Invermere Forest District office in Invermere or the Nelson Forest Region office in Nelson and request a copy of the Data Package. The public will have an opportunity to review and comment on the information report and data package. A response form at the end of this document is provided for written comments which will be accepted until April 28, 2000.

Timber Supply Review process

In British Columbia, a process for determining allowable annual cuts has been in place since the late 1940s. However, the process has changed significantly over time. More recently, the process has undergone some minor revisions designed to improve efficiency and encourage earlier public review through the release of this report.

Figure 1 (next page) illustrates the five-step process that has been developed for the Timber Supply Review for timber supply areas. The diagram indicates the current status of the Timber Supply Review for the Invermere timber supply area, and the estimated time required for each step.

Timber Supply Review

in the Invermere TSA

Timber supply
A harvest level that is forecasted to be available over time, under a particular management regime.

Timber supply area
An integrated resource management unit established in accordance with Section 7 of the *Forest Act.*

Tree farm licence (TFL)
Provides rights to harvest timber, and outlines responsibilities for forest management, in a particular area.

Allowable annual cut (AAC)
The rate of timber harvest permitted each year from a specified area of land, usually expressed as cubic metres of wood per year.

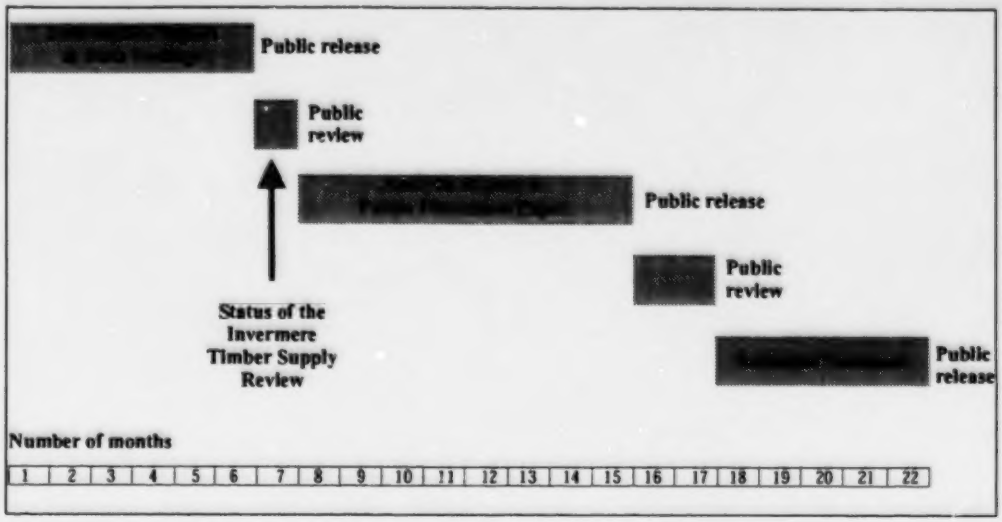

Public release
Public review
Public release
Public review
Status of the Invermere Timber Supply Review
Public release
Number of months
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22

Figure 1.
Review process for the Invermere timber supply area.

The process for reviewing the timber supply and establishing the allowable annual cut for tree farm licence areas is based on similar principles; however, the process takes 30 months from start to completion.

The chief forester's responsibility

Determining the allowable annual cuts for Crown forestlands in British Columbia is the responsibility of the province's chief forester. It is one of the chief forester's most important responsibilities since it affects the local and provincial economies and environment—now and in the future. Section 8 of the *Forest Act* requires the chief forester to consider the following factors to determine allowable annual cuts for timber supply areas and tree farm licence areas:

a) the rate of timber production that may be sustained from the area, taking into account:
   - the composition of the forest and its expected rate of growth
   - the time in which the forest will become re-established
   - silvicultural treatments, including reforestation
   - standards of timber utilization
   - constraints on the amount of timber produced from the area due to use of the forest for purposes other than timber production
   - any other information which relates to the capability of the area to produce timber

b) the short- and long-term implications to the province of alternative rates of timber harvesting from the area

c) the nature, production capabilities and timber requirements of established and proposed processing facilities

d) the economic and social objectives of the Crown for the area, the region and the province, as expressed by the minister of forests

e) abnormal insect or disease infestations and major salvage programs planned for the timber on the area

Some of these factors can be measured and analyzed—others cannot. Ultimately, the chief forester's determination is an independent, professional judgement based on the best available information. Information that is relevant to the factors listed above is provided to the chief forester by government agencies, the minister of forests and the public.

One of the objectives of the Timber Supply Review is to incorporate changes arising from new information, new practices and new government initiatives that may have an impact on timber supply.

In the event of significant change, the allowable annual cut may be reviewed in less than the required five years.

Following the release of the allowable annual cut determination by the chief forester, the minister of forests apportions the cut to various licences and programs.

Principles of the Timber Supply Review

In determining allowable annual cuts—in addition to the requirements outlined in Section 8 of the *Forest Act*—the following principles have been developed.

The Timber Supply Review:

- is a decision-making process for establishing allowable annual cuts for timber supply areas and tree farm licence areas by the chief forester on a maximum five-year cycle, as required under Section 8 of the *Forest Act*; **it is not a process for making land-use or management decisions**
- incorporates the best information available, including all relevant current practices, and identifies where new information is needed
- reflects the results of implemented plans and land-use decisions, and provides a benchmark for future planning processes
- involves other agencies, affected groups and the public

Kootenay-Boundary Land-Use plan processes

In 1995, government released the Kootenay-Boundary Land-Use Plan. As part of the plan a number of new parks were established, including the Bugaboo Alpine Provincial Park and the Height of the Rockies Provincial Park. The planning area covers the Invermere timber supply area, plus tree farm licences and other timber supply areas located within the Nelson Forest Region.

On July 8, 1997, government approved the Kootenay-Boundary Land-Use Plan Implementation Strategy. The strategy provides guidelines on innovative forest practices and recommendations on the best use for the available timber. It also provides an expression of the government's commitment to achieve the Crown's social and economic objectives for the region, including the Invermere timber supply area.

Regional landscape unit planning has been initiated in the Nelson Forest Region that includes the Invermere timber supply area. Within this process, the identification of old growth management areas and wildlife tree patches are a priority.

Land-use planning decisions regarding forest practices and protected areas that have been established by government will be reflected in this timber supply review.

Description of the timber supply area

The Invermere timber supply area is situated in the southeastern interior of the province and covers approximately 1.3 million hectares. The timber supply area boundaries coincide with those of the Invermere Forest District, and joins the Alberta border to the east, the Cranbrook timber supply area to the south, the Kootenay Lake timber supply area in the west, and the Golden timber supply area to the north.

The topography is varied and includes two rugged mountain ranges, the Rocky Mountains and the Purcell Mountains. These two mountain ranges are separated by a broad, flat valley known as the Rocky Mountain Trench through which the Kootenay River flows south and the Columbia River flows north. Tree Farm Licence 14 is located within the Invermere Forest District and is excluded from this timber supply review.

Timber Supply Review
in the Invermere TSA

Indirect and induced jobs
Indirect jobs are supported by direct business purchases of goods and services. Induced jobs are supported by employee purchases of goods and services; for example, at retail outlets.

The Invermere timber supply area is administered by the Invermere Forest District office located in Invermere.

The communities

The major population centres in the timber supply area are Invermere, Windermere, Canal Flats and Edgewater. Smaller communities include Radium Hot Springs, Wilmer, Fairmont Hot Springs and Parson.

According to the 1996 Census, the population of the timber supply area was 9,227. The community of Invermere is the largest population centre with about 2,700 people. By the year 2001, the population of the timber supply area is expected to grow to approximately 10,000, an increase of over eight per cent from the 1996 Census.

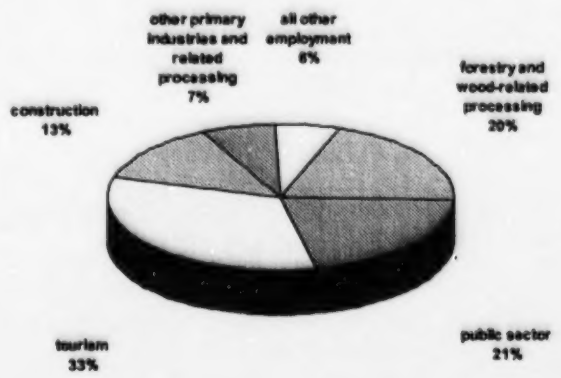
The economy

Figure 2 illustrates total employment by industry sectors for the timber supply area. The economy of the Invermere timber supply area has a large tourism sector that accounts for almost one-third of the area's employment, where as forestry accounts for 20 per cent. Employment in the public sector is the other large sector in the economy.

Forestry employment includes timber harvesting, silviculture and wood products manufacturing. There are two large and several smaller-scale lumber mills in the Invermere timber supply area. In addition, there is a pulp mill and a pole/post plant in the timber supply area.

The forest sector supports other jobs in the region through companies and employees purchasing goods and services from local businesses. This spending is another indicator of the role of forestry in the economy. For every 100 direct forestry jobs in the Invermere timber supply area, another 23 to 63 indirect and induced jobs* are supported, depending on the type of forest activity (logging or timber processing) and the associated level of income. In comparison, every 100 jobs in the public sector or tourism industry supports another 7 to 19 positions.

Figure 2.
Total employment by sector for the Invermere timber supply area, 1996.



Notes: the employment figures are for the Invermere Forest District and include employment that relies on the tree farm licence and other timber supply areas. Percentages reflect direct, indirect, and induced employment supported by the basic sector.

Source : Statistics Canada / Census of Canada, 1996

First Nations

The Ktunaxa Kinbasket Tribal Council has traditional territory within the Invermere timber supply area. Bands associated with the tribal council are involved with the British Columbia Treaty Process. The Columbia Lake Indian Band and the Shuswap Indian Band have communities within the timber supply area and have a combined population of approximately 417.

The Ktunaxa Kinbasket Tribal Council have completed a Traditional Use Study that identifies cultural and heritage resources located within the Invermere timber supply area.

The forest land resources

Numerous natural resources are associated with the forest land base. Forest products, recreation, ranching, mining, tourism amenities, and a variety of wildlife habitats highlight the wide range of resource values in the Invermere timber supply area. The diverse terrain of mountains and river valleys result in different climates and vegetation in the timber supply area. The Columbia Wetlands is a significant wetland ecosystem running north and south, that bisects the timber supply area.

Rangeland areas provide forage for both livestock and wildlife. There are two types of rangelands; permanent rangeland where substantial amounts of forage can be found in the same area over time, and transitory rangeland, where forage is temporarily available a few years following harvesting or fire. Within the Rocky Mountain Trench, an ecosystem restoration program has been initiated where the objective is to restore and maintain open forest and open range areas.

Parks, recreation sites and trails, numerous water bodies, and roaded and non-roaded areas provide opportunities for numerous outdoor activities. The following provincial parks are within the timber supply area: Mount Assiniboine, Height of the Rockies, Windermere Lake, Whiteswan, Top of the World, Premier Lake, Canal Flats, James Chabot, Dry Gulch, Purcell Wilderness Conservancy and Bugaboo Alpine. The mountainous terrain, rivers and lakes in the timber supply area support a wide range of opportunities for recreation activities including back country touring, boating, camping, cross-country skiing, heli-skiing, hiking, horseback riding, hunting, mountain-biking, snowmobiling and whitewater rafting.

The environment

There are six biogeoclimatic zones* in the Invermere timber supply area. The distinct ecological features and the unique nature of the area contribute to high biodiversity values. The low elevation and dry areas within the timber supply area are characterized by grassland and Douglas-fir and ponderosa pine forests. Areas with higher precipitation and elevation support lodgepole pine, spruce, and subalpine fir stands. The high elevation mountaintops are blanketed with alpine shrubs, herbs and lichens.

The diverse forests host a range of wildlife species, which are considered rare and potentially threatened by human activities and natural events. Examples in the Invermere timber supply area are the northern goshawk, bull trout, American bittern, fisher, and grizzly bear. In addition, populations of Rocky Mountain elk, Rocky Mountain bighorn sheep, mule deer, white-tailed deer, moose, mountain lion and black bear are found in this timber supply area. The local lakes and wetlands attract a significant number and diversity of waterfowl and other migrating birds.

Biogeoclimatic zones
A large geographic area with broadly homogeneous climate and similar dominant tree species.

History of the allowable annual cut

Effective March 1, 1996, the chief forester set the allowable annual cut for the Invermere timber supply area at 591,500 cubic metres, a 10 per cent reduction from the previous determination.

As part of the 1996 determination, the chief forester gave direction to resolve uncertainties with respect to the timber supply in the Invermere timber supply area. In preparation for the next allowable annual cut determination, the following issues were examined:

- **not-satisfactorily-restocked areas** – during the previous determination, the chief forester requested a more accurate accounting of areas classified as not satisfactorily restocked.

Integrated resource management
The identification and consideration of all resource values, including social, economic and environmental needs, in resource planning and decision-making.

Forest Practices Code
Legislation, standards and guidebooks that govern forest practices and standards, with heavy penalties for violators.

Forest Service district staff have determined that the amount of not-satisfactorily restocked area is approximately 2121 hectares for areas harvested prior to 1987, and approximately 18,000 hectares for areas harvested during 1987 or later. The review of the not-satisfactorily-restocked areas harvested prior to 1987 indicated that about 930 hectares will not be considered operationally feasible for regeneration. These areas are classified as non-productive forest, and considered not to contribute to the timber harvesting land base. The remainder of the area harvested prior to 1987 has either recently been planted, or is expected to regenerate over the next few years. The area harvested or disturbed since 1987 is being monitored and is expected to be re-stocked within the regeneration delay period.

- **cutblock adjacency** – in the last determination, the chief forester noted that cutblock adjacency was accounted for in the timber supply analysis by allowing a maximum of 40 per cent of an area to be less than three metres tall.

  Based on district staff review of cutblock adjacency, the area with stands less than a green-up height of three metres will be limited to a maximum of 25 per cent.

- **uneven-aged silviculture systems and mixed species management** – in the last determination the chief forester noted the increasing use of silviculture systems other than clearcutting. Alternative silviculture systems involve leaving some trees standing on a cutblock after harvesting, which may change the projected volume growth for managed stands.

  The amount of partial harvesting in the timber supply area has been monitored since the previous timber supply review and will be reflected in the upcoming timber supply analysis. The projected volumes for the partial harvesting areas will reflect the estimated volume of the residual trees and trees growing in the understory.

- **commercial thinning** - the chief forester noted during the last timber supply review that commercial thinning in stands aged 40 to 80 years could be used to reduce projected shortages in the future.

  In preparation for the timber supply review, forest service staff reviewed about one third of the inventory and determined that few candidate areas are suitable for commercial thinning. Sensitivity analysis will help to assess the impact on projected timber supply of commercial thinning activities in suitable candidate areas.

Note: For more information on these points, please refer to the Invermere timber supply area Rationale for Allowable Annual Cut Determination, March 1996.

Current timber supply review

Public forestlands in British Columbia provide recreational enjoyment, fish and wildlife habitat, water supplies, timber resources and many other benefits. The Ministry of Forests manages the timber, range and recreation resources on public lands, while the Ministry of Environment, Lands and Parks is responsible for the management of fish, wildlife, water resources and parks. Both agencies subscribe to the principle of integrated resource management*, where all resources are considered when making forest management decisions.

The Forest Practices Code* is now law and has been fully implemented in the timber supply area since June 15, 1995. The new practices may influence both the short- and long-term timber supply.

The data and management assumptions that will be used in the timber supply analysis will be based on the existing land-use designations and resource management practices that are currently approved and implemented in the Invermere timber supply area. Uncertainties about some of

the data regarding current practices and their potential effects on timber supply will be examined through sensitivity analyses. The chief forester will also consider any new information, based on implemented changes, at the time of the allowable annual cut determination.

Draft data and management assumptions for public review

The public is encouraged to review the data and management assumptions for completeness and accuracy. In determining an allowable annual cut, the chief forester will consider these assumptions as required by Section 8 of the *Forest Act*. The following general outline contains a brief description of the more pertinent information that will be used in the timber supply analysis and, subsequently, in the chief forester's allowable annual cut determination for the Invermere timber supply area. More detailed information can be found in *Appendix A: Data Package*. This appendix is available upon request from the Forest Service offices listed at the end of this report.

Land base factors

- **operable area** - forested areas are assessed for operability based on economic, ecological and physical attributes. For the Invermere Timber Supply Review, areas identified by Forest Service staff as physically inaccessible, or with a combination of steep slopes and low site growth potential, are classified as inoperable and do not contribute to the timber harvesting land base.
- **low productivity sites** - forest stands that are not expected to produce an economically harvestable crop of trees within a reasonable time do not contribute to the timber harvesting land base.
- **environmentally sensitive areas*** - the forest inventory includes a classification of areas that are environmentally sensitive and/or significantly valuable for other resources. For the Invermere timber supply area this includes areas with sensitive soils, forest regeneration problems, water quality concerns, snow avalanche risk, wildlife habitat, or recreation values.

  Areas with high environmental sensitivity will not contribute to the timber harvesting land base. Areas with moderate environmental sensitivity will contribute to timber harvesting land base. In environmentally sensitive recreation and wildlife areas, forest cover requirements will be applied.
- **forest roads** - for the timber supply analysis, an estimate was made of the productive forest area occupied by roads, trails, and landings. Based on this analysis, 7.5 per cent of the total forest will account for current roads, trails, and landings, and therefore will not contribute to the timber harvesting land base. To account for future road access, an 8.1 per cent deduction will be applied to areas with no harvesting history at the time of their first harvest.
- **cultural heritage resources** – to ensure the protection of cultural heritage resources the forest district completed archaeological overview assessments and site specific impact assessments. These assessments have resulted in less than 10 hectares that do not contribute to the timber harvesting land base.
- **problem forest types** – forest types that are not currently utilized in the Invermere timber supply area due to poor quality wood or small tree size do not contribute to the timber harvesting land base. A sensitivity analysis will be performed to evaluate the potential timber supply contribution of these types.

Environmentally sensitive areas
Areas identified as requiring special management to protect important recreation and scenic values, fisheries resources, sensitive soils and unstable slopes.

Cutblock
A specific area, with defined boundaries, authorized for harvest.

Green-up
The time needed after harvesting for a stand of trees to reach a desired condition (usually a specific height) — to ensure maintenance of water quality, wildlife habitat, soil stability or aesthetics — before harvesting is permitted in adjacent areas.

Biodiversity (biological diversity)
The diversity of plants, animals and other living organisms in all their forms and levels of organization, and includes the diversity of genes, species and ecosystems, as well as the evolutionary and functional processes that link them.

Inventory factors

- **forest inventory** - the forest inventory has been updated to January 1998, and takes into account recent harvesting, impacts from wildfires, and silviculture activities.

  The dominant tree species in the Invermere timber supply area are lodgepole pine and interior Douglas-fir found at low elevations, and Englemann spruce and subalpine fir located at higher elevations. The lower elevations in the southern one-third of the timber supply area are occupied predominately by ponderosa pine. Western larch, western redcedar, white-bark pine, aspen, birch and cottonwood are also found in the timber supply area.
- **minimum harvestable ages** – the minimum harvestable age is an estimate of the earliest age at which a forest stand will reach a merchantable volume and considered available for harvest. For the timber supply analysis, the minimum age by species was based on growth rate, tree diameter and volume per hectare, and local experience.

Forest re-establishment factors

- **basic silviculture** - British Columbia laws require that harvested areas expected to produce timber in the future must be reforested with ecologically acceptable species within a specified time frame. The most common silvicultural practice is to harvest; then if necessary prepare the site for reforestation; reforest by planting a mix of species or by relying on natural regeneration; and finally if necessary, control competing vegetation.

  In the Invermere timber supply area, reforestation requirements are achieved, where appropriate, by well-spaced planting of trees acceptable species. On less productive sites of lodgepole pine, a combination of planting and natural regeneration is used. In the timber supply analysis, it will be assumed that all areas that are clearcut will either be planted or regenerated naturally and will achieve adequate stocking levels three years after harvest. Reforestation in partially harvested stands is by natural regeneration and these stands are assumed to be stocked at all times.

Timber utilization factors

- **timber utilization** – volume estimates will be based on the utilization of all trees (with some exceptions as noted below) which meet or exceed the following standards: a minimum top diameter (inside the bark) of 10 centimetres; a minimum diameter of 17.5 centimetres at 1.3 metres above the ground. In lodgepole pine stands, a minimum diameter of 12.5 centimetres at 1.3 metres above the ground is used. All species must be utilized to a maximum 30-centimetre high stump. The minimum top-diameter standard for a minor component of western redcedar is 20 centimetres.

Infestations, devastations and salvage of timber

Each year, natural agents such as fire, wind, insects and disease damage portions of the forests in the Invermere timber supply area. It is anticipated that some of the damaged timber will not be salvaged due to access and economic limitations or other environmental considerations. The annual unsalvaged volume for the Invermere timber supply area for this timber supply analysis is estimated to be 26,300 cubic metres. Considerable uncertainty surrounds the effects of Armillaria ostoyae (a root disease) on timber supply. A sensitivity analysis will be performed to assess the potential timber supply impacts of increases in damage associated with root disease.

Factors to be considered for purposes other than timber production

Forest management guidelines used to manage forest resources such as biodiversity, scenic values, wildlife habitat and water quality will be included in the timber supply analysis through the use of forest cover requirements and volume and land-base reductions.

- **general forest cover requirements** - under current forest management practices, cutblocks* must achieve green-up* before adjacent areas are permitted to be harvested. To account for the effects of cutblock adjacency requirements, the area with stands less than a green-up height of three metres will be limited to a maximum of 25 per cent of the timber harvesting land base.
- **visually sensitive areas** – in specific areas the maintenance of scenic landscapes is a priority for recreation and tourism management. Such areas are usually located along major highways, primary access corridors and recreational waterways. Road construction and logging within these areas are planned and implemented to minimize visual impacts. To account for visually sensitive areas in the Invermere timber supply area, the current management practice is to allow a maximum of 5 to 15 per cent of the visually sensitive area to have forests less than 4 to 8.5 metres tall at any time, based on area-specific visual classification.
- **community watersheds** - to account for forest cover requirements in community watersheds, a maximum of 20 per cent of the total forested area within each watershed will be allowed to have forests less than six metres tall at any time.
- **ungulate winter range** – to ensure the protection of ungulate winter range, a minimum age or amount of mature or old forest cover is retained to provide for snow interception and thermal cover. For the timber supply analysis, within the ungulate winter range for each draft landscape unit, a minimum of 40 per cent of the area will be required to be covered with trees older than 120 years.
- **caribou habitat** – caribou habitat management is consistent with the Kootenay-Boundary Land-Use Plan Implementation Strategy guidelines. To account for caribou habitat in the timber supply analysis, a minimum of 30 per cent of forest area on the timber harvesting land base must be older than 141 years and 10 per cent must be older than 250 years.
- **riparian** – to account for riparian reserve zones, the timber harvesting land base will be reduced by two per cent. To account for management restrictions in riparian management zones, appropriate area deductions as required by the *Riparian Management Area Guidebook* will be applied.
- **biological diversity** - or biodiversity*, is the full range of living organisms, in all their forms and levels of organization, and includes the diversity of genes, species, and ecosystems, and the evolutionary and functional processes that link them. The Forest Practices Code requires that biodiversity be managed at both the stand and landscape levels.

  For stand level biodiversity, current practice in the Invermere timber supply area is to leave wildlife tree* patches and single trees. Generally, coarse woody debris* objectives are met by the contributions of non-merchantable timber left on the ground. For the timber supply analysis, stand level biodiversity will be accounted for by reducing the timber volume estimates associated with all stands in the timber harvesting land base.

  Considerations for landscape-level biodiversity will be accounted for in the timber supply analysis by applying averaged seral stage* requirements to each draft landscape unit* at the biogeoclimatic subzone level. The

Wildlife tree
A standing live or dead tree with special characteristics that provide valuable habitat for conservation or enhancement of wildlife.

Coarse woody debris
Logs and stumps that provide habitat for plants, animals and insects, and a source of nutrients for soil development.

Seral stages
Sequential stages in the development of plant communities that successively occupy a site and replace each other over time.

Landscape unit
A planning area based on topographic or geographic features, that is appropriately sized (up to 100 000 hectares), and designed for application of landscape-level biodiversity objectives.

Base case forecast
The timber supply forecast which illustrates the effect of current forest management practices on the timber supply using the best available information, and which forms the reference point for sensitivity analysis.

Person-year(s)
One person working the equivalent of one full year, defined as at least 180 days of work. If someone works full-time for 90 days, he or she accounts for 0.5 person years.

average requirement will reflect recommendations in the *Landscape Unit Planning Guide* that about 45 per cent of a timber supply area should have lower biodiversity emphasis, 45 per cent intermediate biodiversity emphasis, and 10 per cent higher biodiversity emphasis.

Sensitivity analyses will be performed to assess the potential timber supply impacts of applying the draft Invermere Forest District landscape unit biodiversity emphasis options. Other sensitivity analyses will look at the effects of implementing early seral requirements for biodiversity.

Implications of alternative rates of harvesting

- **alternative rates of harvesting** - there are many alternative harvest forecasts that can be produced for a given set of forest conditions and management assumptions. Each alternative usually represents a trade-off between the harvest level in the short term and the subsequent transition to the long-term harvest level. For the projected base case forecast*, the initial harvest forecast will focus on achieving the current allowable rate of harvest in the short term without compromising the long-term harvest level. The implications of alternative short-term rates of harvest will be tested in sensitivity analyses.
- **implications related to community dependence** - The impact of timber supply adjustments on local communities and the provincial economy is an important consideration in the timber supply review. The April 1995 *Invermere Timber Supply Area Socio-Economic Analysis* reported that, harvesting, silviculture and processing activities associated with the harvesting of the Invermere timber supply supported 572 direct person-years* and 859 indirect and induced person-years of employment provincially.

The socio-economic section of the upcoming timber supply analysis report will review the role of the forest sector in the Invermere timber supply area. To provide this update, current information on employment and fibre flows will be gathered from licensees, processing facilities, the Forest Service and other stakeholders. Indirect and other related employment at both local and provincial levels will also be estimated using employment multipliers provided by the Ministry of Finance and Corporate Relations.

To examine the implications of alternative rates of harvest, employment coefficients, reported in person-years per 1,000 cubic metres, will be developed and used to estimate changes to employment levels now and in the future from any potential harvest level changes.

Timber processing facilities

The socio-economic analysis will examine the implications of potential changes of timber supply for the area's timber processing facilities. These facilities include two large lumber mills and several smaller-scale mills. Estimated annual capacity for the lumber mills is 730,000 cubic metres. There are two large lumber mills, one operated by Crestbrook Forest Industries Ltd. located in Canal Flats, and the other by Slocan Forest Products Ltd. located in Radium Hot Springs. Crestbrook Forest Industries Ltd. also operates a pulp mill in Skookumchuk with an annual capacity of 225,000 metric tonnes. In addition, a smaller-scaled mill Brisco Wood Preservers operates a pole plant located in Brisco.

From 1996 to 1998, the average annual harvest in the Invermere timber supply area was nearly 637,000 cubic metres. During 1998, the area's timber processing facilities used approximately 630,000 cubic metres of timber, 435,000 bone dry units of wood chips and employed an estimated 600 people.

Economic and social objectives of the Crown

In a letter and a memo to the chief forester, the minister of forests has expressed the Crown's economic and social objectives for the province. The harvest flow objectives to be used in the timber supply analysis (see previous section, "*Alternative rates of harvesting*") are consistent with the minister's stated objectives.

In addition, economic and social objectives for the area and the general region will be derived from public input.

Your input is needed

Establishing the allowable annual cut is an important decision that requires well-informed and thoughtful public input. Feedback is welcomed on any aspect of this *Information Report*, the *Data Package Appendix* and other topics related to the timber supply in the Invermere timber supply area. The response form at the end of this document will assist you in preparing your comments. As well, Forest Service staff would be pleased to discuss questions or concerns that may help you prepare your response.

Please mail the completed response form and your comments to the Forest Service district manager located at the address below. Your comments will be accepted until April 28, 2000.

After receiving public input, the Forest Service will finalize the data and management assumptions that will be applied in this timber supply analysis. The timber supply analysis will be completed and available for review by summer of 2000. You may also wish to participate in the second public review period, which will follow the release of the *Invermere Timber Supply Area Analysis Report*.

Following the second public review period, the chief forester will examine all the information available in order to review the timber supply for the Invermere timber supply area. The chief forester will then establish the allowable annual cut after considering the factors as required under Section 8 of the *Forest Act*.

You may identify yourself on your response if you wish. If you do, you are reminded that responses will be subject to the *Freedom of Information and Protection of Privacy Act* and may be made public. If copies of the responses are requested, personal identifiers will be removed before the responses are released.

For more information contact and/or mail your comments to:

District Manager
B.C. Forest Service
Invermere Forest District
625 – 4th Street,
PO Box 189
Invermere, B.C. V0A 1K0

Phone: (250) 342-4200
Fax: (250) 342-4247

Or electronically to:
Al.Neal@gems8.gov.bc.ca

B.C. Forest Service
Nelson Forest Region
518 Lake St.
Nelson, B.C. V1L 4C6

Phone: (250) 354-6203
Fax: (250) 354-6250

APPENDIX A

Data Package
Description of Data Inputs and Management Assumptions

This appendix is available upon request from the Ministry of Forests.

Offices are located at:

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